

# FACT SHEET

# West Van Buren Water Quality Assurance Revolving Fund Site February 2006

The Arizona Department of Environmental Quality (ADEQ) is sending this fact sheet to inform community members within and near the West Van Buren Water Quality Assurance Revolving Fund (WQARF) site in Phoenix about the contamination present at the site and the process for investigation and cleanup of the contamination.

### WHAT IS THE WATER QUALITY ASSURANCE REVOLVING FUND (WQARF)?

The state's Superfund program is known as the WQARF Program. The WQARF Program was established by Arizona law to conduct statewide surface and groundwater monitoring, study health effects of *contamination\**, perform emergency cleanup actions and conduct long-term cleanup programs. The WQARF Program is funded with state monies, civil and criminal penalties, and funds recovered from parties responsible for contamination.

#### WHAT IS THE WQARF REGISTRY?

ADEQ has established a Registry of sites in Arizona where groundwater and/or soil contamination are known to be present. Sites appearing on this Registry qualify for funds available from the state's WQARF for investigation, cleanup of contamination or both. The West Van Buren WQARF site is included on this Registry because of *solvent* contamination in the *groundwater*. Sites on the Registry are given a numeric score based in part upon the type of contaminant(s) present, the location of the contaminant(s) and the number of people that may be affected by the contaminant(s). Scores are used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment. The score of the West Van Buren WQARF site is 50 out of a possible 120.

For further information on this site or other WQARF sites, please visit the ADEQ Web site at www.azdeq.gov. Click on Waste Programs Division, then click on Superfund Programs, and follow the prompts for the information you need.

## WHAT ARE THE CONTAMINANTS AT THE WEST VAN BUREN WQARF SITE?

Six contaminants are currently known to be present above regulatory levels in the groundwater of the West Van Buren WQARF site. The contaminants are the industrial solvents tetrachloroethene (PCE), commonly used in dry cleaning processes and as a degreaser; trichloroethene (TCE), primarily used in metal degreasing and cleaning operations; I,I-dichloroethene (I,I-DCE), used to make certain plastics, as a fire retardant, and can be a breakdown product of other solvents; cis-I,2 dichloroethene (cis-I,2-DCE), used to produce solvents and in chemical mixtures, and can also be a breakdown product of other solvents; I,I-dichlorothane (I,I-DCA), used to make other

chemicals, paint, varnish and finish remover, and can also be a breakdown product of other solvents; and chromium, a metal commonly used in plating facilities.

### GROUNDWATER INVESTIGATION WITHIN THE WEST VAN BUREN WOARF SITE:

ADEQ is currently conducting a remedial investigation within the West Van Buren WQARF site. Approximately 115 ground-water monitoring wells have been installed and are sampled on a quarterly to semi-annual basis. The groundwater contamination plume drawn on the map is based upon the presence of PCE and TCE in concentrations above the regulatory limit of five parts per billion (ppb) for both.

The aquifer beneath the site is divided into three sections the upper alluvial unit (UAU), middler alluvial unit (MAU) and the lower alluvial unit (LAU). The UAU and MAU have been affected by contamination from the site. Currently PCE contamination above the regulatory limit is present in the MAU down to approximately 400 feet below ground surface.

During September of 2005 ADEQ collected groundwater samples from 76 monitoring and 10 Roosevelt Irrigation District (RID) wells. During this sampling event, the highest TCE and PCE concentration detected in the UAU was 150 ppb and 90 ppb, respectively. The highest detected TCE and PCE concentration in the MAU was 130 ppb and 42 ppb, respectively. The highest detected TCE and PCE concentration in the RID wells was 99 ppb and 13 ppb, respectively.

ADEQ is currently working toward finishing the remedial investigation of the West Van Buren WQARF site which includes installation of additional monitoring wells and preparing the draft remedial investigation report. A considerable amount of time and effort has been spent to interpret the complicated lithology beneath the site and identify potential source areas.

### CLEANUP ACTIONS WITHIN THE WEST VAN BUREN WOARF SITE:

Several facility cleanup actions occurred during the course of the West Van Buren WQARF site investigation. Cleanup actions include: soil vapor extraction (SVE), air sparging, and groundwater pump and treat systems and are as follows:

- Van Waters & Rogers, Inc. began operations of an SVE system in November 1992. ADEQ authorized system shut down in 2002 and issued a No Further Action for soil.
- Maricopa County began operation of an SVE system in 1997.
   The system was shut down after six months of operation due to soil contaminant levels being reduced to below regulatory standards.

### THE NEXT CAB MEETING WILL BE ON APRIL 11TH AT 6:00 P.M. AT THE ADEQ BUILDING LOCATED AT 1110 WEST WASHINGTON, ROOM 145, IN PHOENIX

- American Linen Supply Company at 720 West Buchanan settled with ADEQ in 1997. ADEQ began an early response action in 2001 which included an SVE/air sparge system and a groundwater pump and treat system. Over 900 pounds of VOCs were removed and the SVE/AS system was shut down in October 2002. The groundwater pump and treat system was shut down in September 2003 after treating approximately 118 million gallons of groundwater.
- Dolphin Incorporated began operation in 1998 of an SVE/AS at their facility. In April 2004, Dolphin received authorization from ADEQ to shut down the system.
- Reynolds, Inc. removed contaminated soil from their site and received a No Further Action from ADEQ in 2000.

## WHAT IS THE QUALITY OF YOUR DRINKING WATER IF YOU LIVE WITHIN THE BOUNDARIES OF THE WEST VAN BUREN WQARF SITE?

The depth to groundwater in the area of the site is between 90 and 140 feet below ground surface for the upper aquifer and 200 to 400 feet below ground surface for the middle aquifer. The water under the site is not used in the public drinking water system. Drinking water is provided by the City of Phoenix and meets all regulatory drinking water standards. The majority of risk associated with contaminated groundwater from this site comes from long term-direct exposure to the water by drinking or bathing. Without a route of exposure, such as drinking the water, there is no risk to you. If you are connected to a public drinking water system, your public drinking water provider is required by law to provide water that meets all state and federal drinking water standards. The water provider conducts regular testing of your drinking water to ensure that standards are met and to ensure that safe drinking water is delivered to the community. For more information concerning your drinking water quality please contact your water provider. The City of Phoenix Water Services number is (602) 262-6251.

#### DO YOU OWN A PRIVATE GROUNDWATER WELL?

If you are using a private well located within the boundary of the West Van Buren WQARF site, please call Jennifer Edwards, ADEQ Project Manager at (602) 771-4703 or, toll free at (800) 234-5677. Groundwater located within the West Van Buren WQARF site boundary should be sampled and tested regularly if being used for domestic purposes. If you have a well located within the West Van Buren WQARF site and you are concerned about the water quality, please contact the ADEQ Project Manager.

#### WHAT ARE THE FUTURE PLANS FOR THIS SITE?

Currently, ADEQ is conducting a remedial investigation at the site. This involves determining the extent of the groundwater contamination and collecting the information necessary to evaluate area wide remediation and cleanup options. ADEQ plans to complete the remedial investigation field work for the West Van Buren WQARF site by June 2006. When the remedial investigation is completed, final cleanup options will be developed and analyzed in a feasibility study report.

Input from the public will be sought through newsletters, pub-

lic open houses and other means to ensure that ADEQ is aware of local plans and concerns of the affected community, and to ensure that the public understands and accepts the proposed remedy. ADEQ has formed a Community Advisory Board (CAB) to ensure that citizens in the area of the site have the opportunity to be involved in the decision-making process. The CAB meets on a regular basis. If you would like to become involved in this process or would like additional information, please see the insert in the middle of this notice.

### WHAT ARE THE RISKS ASSOCIATED WITH THIS CONTAMINATION?

There are risks associated with exposure to these contaminants, principally through drinking the contaminated water. Most risks associated with contaminated groundwater come from long-term direct exposure to the water by drinking or bathing. Without a direct route of exposure, such as drinking the water, there should be no risk to you.

People who drink water containing PCE and/or I, I, DCA in excess of the regulatory levels over many years could experience problems with their liver, kidneys, or nervous system. People who drink water containing TCE and/ or I,I, DCE in excess of the regulatory level over many years could experience problems with their liver or kidneys. People who drink water containing cis,I,2-DCE in excess of the regulatory level over many years could experience problems with their liver, circulation or nervous system. People who drink water containing chromium in excess of the regulatory level over many years could experience problems with their liver or kidneys or experience stomach upsets or ulcers.

People who drink water containing PCE, TCE, I,I-DCE, I,I-DCA or chromium in excess of the regulatory level over many years may have an increased risk of getting cancer. In addition to the substances that have been detected above regulatory levels, other substances have been detected below regulatory levels or have no regulatory standards. Any substances that are present below regulatory levels are presumed to be harmless to the public.

For more information about health issues, please call the Department of Health Services, Office of Environmental Health, (602) 364-3118 or (800) 367-6412.

#### **ADEQ CONTACTS**

Records Center: With 24 hour notice, an appointment to review relating documentation is available Monday through Friday from 8:30 a.m. to 4:30 p.m., at the ADEQ Records Management Center, 1110 W. Washington Street in Phoenix, Arizona. Please contact (602) 771-4380 or (800) 234-5677 to schedule an appointment to review these documents.

### Jennifer Edwards

Project Manager ADEO

Phone: (602) 771-4703 (800) 234-5677 (AZ toll free) Fax: (602) 771-4272

E-Mail: slr@azdeq.gov

#### **Wendy Flood**

Community Involvement Coordinator

ADEQ

Phone: (602) 771-4410 (800) 234-5677 (AZ toll free)

Fax: (602) 771-4138 E-Mail: wv1@azdeq.gov

Please visit ADEQ's Web site at www.azdeq.gov for more information about Arizona's environment.

Hearing-impaired individuals call our TDD line: (602) 771-4829.

#### **GLOSSARY**

**Air sparging** - A treatment technology in which air is injected into the ground below a contaminated area, forming air pockets that rise and carry trapped and dissolved contaminants to the surface, where they are captured by a soil vapor extraction system. Air sparging may work well at sites contaminated with solvents and other VOCs.

**Aquifer** - An underground geological formation composed of sand, soil, gravel or porous rock that can store and supply groundwater to wells and springs.

**Contamination** - The presence of any contaminant, including hazardous substances, in groundwater, surface water or soil above a regulatory level.

**Feasibility study (FS)** - The evaluation of potential remediation methods for achieving the cleanup goals determined during a remedial investigation. Under the federal Superfund program, the alternative methods are evaluated using the following criteria: overall protection of human health and the environment; ability to achieve regulatory standards or site-specific standards developed during a site-specific risk assessment; short-term effectiveness; long term effectiveness or permanence of result; reduction of toxicity, mobility or volume of hazardous substance through treatment; feasibility and reliability; and community acceptance.

**Groundwater** - Water found beneath the Earth's surface. This includes water that fills the spaces within and between materials such as sand, soil, clay, gravel or fractured bedrock as well as water found in underground streams. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation and other purposes.

**Monitor wells -** Wells which are installed for the purpose of obtaining information about the groundwater at a specific location such as water quality, depth to water and groundwater flow direction. Data is usually gathered over a period of time to help determine trends in flow direction and contaminant plume movement. Monitor wells may be used as sentinel wells for an "early warning system" to protect drinking water wells.

**Parts per billion (ppb)** - a unit of concentration commonly used to express low concentrations of contaminants. For example, I ounce of TCE in one billion ounces of water is  $I\mu g/L$  (microgram per Liter) or ppb. If one drop of TCE is mixed in a competition size swimming pool, the water will contain about Ippb of TCE.

**Plume** - The portion of the groundwater in an aquifer which is contaminated. It is usually determined by data from monitor wells.

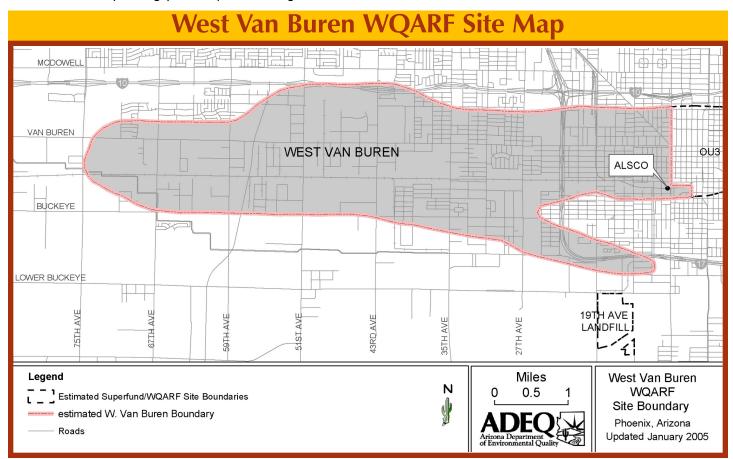
**Pump and treat** - A remedial action that involves installing wells at strategic locations to extract contaminated groundwater, treating it aboveground to remove the contaminants, and reinjecting it into the aquifer. Other uses for the water or part of the water may be an option such as watering golf courses and dust control.

Remedial investigation (RI) - An in-depth investigation designed to (I) establish the nature and extent of the contamination and the source(s) of contamination; (2) identify current and potential impacts to public health, welfare, and the environment; (3) identify current and reasonably foreseeable uses of land and waters of the state; and (4) obtain and evaluate any other information necessary for identification and comparison of alternative remedial actions.

**Remediation** - Remediation is the action(s) taken to deal with the release of a hazardous substance that could affect people or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial actions, removal actions, response action or remedy.

**Solvent** - Solvents are chemical products, usually liquid, that are used to dissolve or disperse other compounds/substances. PCE is a common solvent used in dry cleaning and for cleaning auto and airplane parts.

**Volatile organic compounds (VOCs)** - A large group of carbon-containing chemicals that readily evaporate at room temperature. Examples of VOCs are isopropyl alcohol (rubbing alcohol), carbon tetrachloride (spot remover), acetone (found in some nail polish removers) and the solvents PCE and TCE (dry cleaning and metal degreasing).





## Mailing List Form and Community Advisory Board (CAB) Application

West Van Buren Water Quality Assurance Revolving Fund (WQARF) Site

If you would like to be added to the site mailing list, please fill out the top portion of this form and return it to ADEQ. If you would like to apply to serve on the CAB, please also complete the bottom portion of this form.

| First Name:   | Last Name:                                    |                   |
|---|---|-------------------|
| Organization / Association:   |   |                   |
| Address:  |   | Zip code:         |
| Mailing address: (if different from above   | re)   |                   |
|   |   | Zip code:         |
| Email address:  |   |                   |
| Occupation:   |   |                   |
| Phone numbers: (home:)  |   |                   |
| (cell:)   | (other:)                                      |                   |
| Would you like to receive future mailir a Preferiría recibir envíos por correo of Application for CAB Membershi | en inglés □ o en español? □ (mar              |                   |
| How long have you lived in or near the Are you willing to make a commitment                                     | e Site?t to serve on the CAB for at least 1 y | year?             |
| Are you able to attend at least four me   |   |                   |
| What day(s) / time(s) would be best for   | you to attend meetings?                       |                   |
| Please explain why you would like to s  | erve on the CAB (attach a separate            | sheet if needed): |
|   |   |                   |
|   |   |                   |
|   |   |                   |
|   |   |                   |
|   |   |                   |

Please complete and return this application. Please fold and tape this form before mailing (<u>no</u> staples). ADEQ, Outreach Unit, 1110 West Washington, Phoenix, AZ 85007 or fax to (602) 771-4138.

For more information, visit ADEQ's Web site at: www.azdeq.gov or contact Wendy Flood at (602) 771-4410. Thank you for your interest.



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



### **BUSINESS REPLY MAIL**

IRST-CLASS MAIL PERMIT NO. 9961

PHOENIX, AZ

POSTAGE WILL BE PAID BY ADDRESSEE

COMMUNITY INVOLVEMENT COORDINATOR 1110 W. WASHINGTON STREET, 4415B-1 PHOENIX, AZ 85007-9973



Hadaddulladladaddaladadd

## **Community Advisory Board Members Needed!**

As progress continues at the West Van Buren WQARF site, ADEQ will keep the public informed through newsletters, public open houses and Community Advisory Board (CAB) meetings.

- Are you concerned about the environment and protecting public health?
- Do you live, work, own property or a business in the West Van Buren area and/or are you interested in the project?
- Would you like to learn more about environmental investigations and cleanup techniques?
- Do you have a minimum of two hours a day, four times a year to volunteer?

If you answered yes to any of the questions above, you may be interested in applying for the West Van Buren CAB! No technical experience is necessary, only an interest to serve as a public member to share community issues and concerns related to the site cleanup. CAB meetings are open to the public and anyone may attend, without prior notice.

THE NEXT CAB MEETING WILL BE ON APRIL 11TH AT 6:00 P.M. AT THE ADEQ BUILDING LOCATED AT 1110 WEST WASHINGTON, ROOM 145, IN PHOENIX

**How do you apply?** Simply complete the application located within this notice.

Who are the CAB members? How are they selected? Membership is comprised of a diversified cross-section of community members who apply. CAB applications will be considered at a regularly scheduled CAB meeting in compliance with Arizona's Open Meeting Law and voted on by the existing West Van Buren CAB members.

**How many times does the CAB meet?** Based on state law, the group is required to meet with ADEQ a minimum of four times per year, although they may choose to hold more meetings.

What else do CAB members do? They can participate in community outreach and make site visits if desired. Since you are serving as a volunteer, you will not be paid for your time; however, your efforts will be valued by the community.

To apply for the CAB, please complete and return the enclosed application. For more information on community involvement activities at the West Van Buren WQARF site contact:

Wendy Flood, ADEQ Community Involvement Coordinator, at (602) 771-4410 or toll free at (800) 234-5677, fax number (602) 771-4138.